Claims:

1. A system for manufacturing a hard disk drive head slider comprising:

an edge blending jig of an edge blending assembly to bond to a number of head sliders for edge blending, said edge blending by lapping tape, wherein

said edge blending jig is configured to receive a portion of lapping tape between each of a number of said sliders;

said edge blending jig is configured to allow said lapping tape to partially wrap an edge of each slider; and

said edge blending is performed by relative movement between said sliders and said lapping tape.

2. The system of claim 1, wherein said edge blending is by directional oscillation of said sliders with respect to said lapping tape.

3. The system of claim 2, wherein said oscillation of the sliders is at a frequency of at least 1 cycle per second.

4. The system of claim 2, wherein said oscillation of the sliders is at an amplitude of at least 10 millimeters.

5. The system of claim 2, wherein said slider oscillation is performed with a first angle (α) between a first face of the slider and the lapping tape and with a second angle (β) between a

second face of the slider and the lapping tape, said first angle and said second angle each being between 3 degrees and 90 degrees.

6. The system of claim 2, wherein said slider oscillation is performed with a portion of lapping tape partially wrapped around an edge of each slider under a tension force of at least 0.05 kilograms.

7. The system of claim 2, wherein said edge blending is performed with said sliders and said lapping tape submerged in a lubricant.

8. The system of claim 2, wherein said lapping tape has a lapping surface covered with an inorganic powder.

9. The system of claim 8, wherein said inorganic powder is diamond powder.

10. The system of claim 8, wherein said powder has a grade between 0.1 microns and 3.0 microns.

11. The system of claim 2, wherein said lapping tape has a thickness between 40 microns and 100 microns.

12. The system of claim 2, wherein said lapping tape is greater than 1.2 millimeters in width.

13. The system of claim 2, wherein a slider row bar is to be bonded to said edge blending jig, said row bar to be separated into individual head sliders upon the edge blending jig.

14. The system of claim 13, wherein said row bar is to be separated into individual sliders by a diamond cutting wheel.

15. The system of claim 2, wherein for a slider cleaning process said lapping tape is a rubber tape and said oscillation is performed with said sliders and said rubber tape submerged in a cleaning solution.

16. The system of claim 15, wherein said cleaning process is performed for at least 30 seconds.

17. The system of claim 2, wherein said lapping tape is a rubber tape and said oscillation is performed with said sliders and said rubber tape submerged in a diamond slurry.

18. A method for manufacturing a hard disk drive head slider comprising:

inserting lapping tape between each of a number of head sliders bonded to a edge blending jig of an edge blending assembly;

adjusting said edge blending assembly to cause the lapping tape to partially wrap an edge of each slider; and

edge blending said head sliders by relative movement between said sliders and said lapping tape.

19. The method of claim 18, wherein said edge blending is by directional oscillation of said sliders with respect to said lapping tape.

20. The method of claim 19, wherein said oscillation of the sliders is at a frequency of at least 1 cycle per second and an amplitude of at least 10 millimeters.

21. The method of claim 19, wherein said slider oscillation is performed with a first angle (α) between a first face of the slider and the lapping tape and with a second angle (β) between a second face of the slider and the lapping tape, said first angle and said second angle each being between 3 degrees and 90 degrees.

22. The method of claim 19, wherein said slider oscillation is performed with a portion of lapping tape partially wrapped around an edge of each slider under a tension force of at least 0.05 kilograms.

23. The method of claim 19, wherein said edge blending is performed with said sliders and said lapping tape submerged in a lubricant.

24. The method of claim 19, wherein said lapping tape has a lapping surface covered with a diamond powder having a grade between 0.1 microns and 3.0 microns.

25. The method of claim 19, wherein said lapping tape has a thickness between 40 microns and 100 microns.

26. The method of claim 19, further comprising:

bonding a head slider row bar to said edge blending jig; and

separating said row bar into said number of head sliders.

27. The method of claim 26, wherein said separating said row bar is performed by a slider parting tool.

28. The method of claim 19, wherein for a slider cleaning process said lapping tape is a rubber tape and said oscillation is performed with said sliders and said rubber tape submerged in a cleaning solution.

29. The method of claim 28, wherein said cleaning process is performed for at least 30 seconds.

30. The method of claim 19, wherein said lapping tape is a rubber tape and said oscillation is performed with said sliders and said rubber tape submerged in a diamond slurry.

31. A method for manufacturing a hard disk drive head slider comprising:

bonding a head slider row bar to a edge blending jig of an edge blending assembly;

separating upon the edge blending jig the row bar into a number of head sliders;

inserting lapping tape between each slider on the edge blending jig;

adjusting said edge blending assembly to cause the lapping tape to partially wrap an edge of each slider; and

edge blending said head sliders by motion oscillation of said sliders with respect to said lapping tape.